

REMARKS

Claims 2 and 4-5 are active. Claims 1 and 3 are canceled. The claims are subject to a restriction requirement wherein claims 1-4 are classified in Group I and claim 5 is classified in Group II. Applicants provisionally elected claims 1-4, Group I. Applicants hereby affirm the election of Group I, claims 1-4. Claim 5 is withdrawn from further consideration.

The specification is objected to. Claims 2 and 4 are rejected under 35 USC 112, second paragraph. Claim 1 (canceled) is rejected under 35 USC 102 as being anticipated by Bliss. Claims 1 (canceled) and 2 are rejected under 35 USC 103 as being unpatentable over Loose in view of Bliss. Claims 3 (canceled) and 4 are rejected under 35 USC 103 as being unpatentable over Loose and Bliss and further in view of Billups '621.

The amendments made herein are made under the new rules wherein only changed versions of the claims and specification are required and that the status of all claims be provided when at least one claim is amended.

Applicants thank the Examiner for his constructive comments. Amendment is made to the specification and certain of the claims in the interest of clarity and consistency and to meet the objections based on formal matters. Minor amendment is made to the specification to change the term "room" to —chamber— which is believed to be more appropriate terminology. A similar amendment is

made to the claims. It is believed the objections based on formalities have been overcome and this basis of the rejection should be withdrawn.

Amended claims 2 and 4-5 are submitted for the Examiner's reconsideration.

Claim 2, amended, calls for:

laying said solid rubber sheet onto a seamless substrate film;

applying a pneumatic pressure to said cylindrical composite for vulcanizing said rubber sheet and for adhering said rubber sheet to said substrate film to form a one piece laminated cylinder
.(underlining added)

These steps are not shown, suggested or otherwise disclosed by Bliss or Loose, taken individually or in combination. As claimed the pneumatic pressure both vulcanizes the rubber sheet at its abutting ends and adheres the rubber sheet to the seamless substrate film in the same step. Thus both the vulcanizing and the adhering lamination to the substrate film are performed simultaneously to these materials.

Bliss is foreign to these steps. As disclosed by Bliss, the uncured belt sleeve is vulcanized (cured) under steam pressure after it is manufactured in a conventional manner. However, he does not disclose a lamination that is executed during the vulcanization. See col. 3, lines 37-41 wherein it is stated that the belt to be cured is first built up in the usual manner as a belt sleeve. No

seamless film is disclosed to which a solid rubber sheet is adhered while at the same time vulcanizing the sheet ends together to form an endless belt.

Loose discloses a rubber conveyor belt reinforced with fabrics and the like which are covered with a rubber cover. These fabrics are covered with rubber layers. No seamless substrate film is disclosed. As admitted by the Office Action, Loose is silent as to the specific method of vulcanization. Therefore, Loose does not disclose the claimed applying the pneumatic pressure to form the vulcanization.

With respect to the pressurization step, the Office Action states only that expected results would be achieved as this type of mold is well known in the art. Expected results is not a test of obviousness. All limitations must be considered. MPEP 2143.03 If the Examiner persists in this aspect of the rejection he is respectfully requested to supply a reference or an affidavit as to his personal knowledge as required by 37 CFR 1.104(d) as to this pneumatic pressurizing step in performing a vulcanization.

In addition to missing that pressure applying step, Loose also discloses one or more of interwoven warp threads are coated with rubber prior to being interwoven. The threaded layer is neither a solid rubber sheet or a seamless substrate film as claimed. Loose discloses that the belt includes vulcanized layers that include a cover and or contact layers of rubber or rubber-like material, Col. 2,

lines 35-47 and 64-68. There is no disclosure or support of a composite comprising a seamless substrate film to which a solid rubber sheet is adhered as claimed. A textile fabric formed of rubber coated threads is not a solid rubber sheet as claimed. No seamless material is disclosed, much less a seamless substrate film. The Office Action states parenthetically that the one textile fabric ply (woven rubberized threads) is a seamless film. This conclusion is not supported by Loose. A fabric ply or a rubber coating are not per se films. This conclusion is contrary to the ordinary and customary meaning of the term "film."

The CAFC states that claims are interpreted based on their ordinary customary meaning. There is a heavy presumption in favor of the ordinary and accustomed meaning. *Johnson Worldwide Associates, Inc. v. Zebco Corp.*, 50 USPQ2d at 1610 (Fed. Cir.). The dictionary meaning of "film" is thin skin or membrane. *Random House College Dictionary*, revised edition, 1975, NY, NY. Loose does not describe the layers of rubber or rubber like material forming the cover as forming a film and also is silent as to such material being seamless. Therefore, Loose is missing the combination of the claimed solid rubber sheet and the seamless substrate film. Loose does not describe any substrate in his belt as being formed of seamless material, much less a film. Plainly, a threaded layer formed of rubber coated threads are not per se a film. He does not disclose or suggest the lamination of a seamless film to a solid rubber sheet as claimed and

at the same time forming the belt by vulcanizing the rubber sheet material abutting ends simultaneously during the pneumatic pressurization vulcanization process.

Thus, there are both vulcanizing and an adhering steps conducted simultaneously.

The adhering step is not vulcanization. The dictionary meaning of vulcanize is: to treat under heat such as rubber to render it non plastic and to give it greater elasticity, durability, to harden, etc. *Random House College Dictionary*. Thus Loose only discloses vulcanization and not both vulcanization and adherence to a seamless film. That is applicants' contribution and not that of the references. The remaining references cited of record are believed to be equally foreign to claim 2. Since the cited references are missing a number of the steps as claimed, it is believed that amended claim 2 is allowable.

Claim 4 depends from claim 2 and is believed allowable for at least the same reasons. For the reasons given, Claims 2-4 are believed in proper form for allowance and such action is respectfully requested.

No fee is believed due for this paper.

The Commissioner is authorized to charge any fees due for this paper or credit any overpayments to Deposit Account No. 03-0678.

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VERSION SHOWING CHANGES TO THE SPECIFICATION

Amend the specification as follows:

a1 [0018] In the figure, reference numerals "1" is a base plate placed on the bottom of the apparatus, "2" is an outer casing mold as a cylindrical outer die and "3" is a core mold as an inner die. A reference numeral "4" is an air bag for applying a pneumatic pressure from outside of the core mold 3 to an unvulcanized rubber 5 as a cylindrical solid sheet and a resin ~~rein~~ film 6 as a cylindrical seamless sheet base, arranged between the outer casing mold 2 and the core mold 3. A reference numeral "7" is a vulcanizing chamber ~~room~~ for vulcanizing the unvulcanized rubber 5 and adhering it to the resin ~~rein~~ film 6 so as to be formed in one piece by applying the pneumatic pressure from the air bag 4.

VERSION SHOWING THE CHANGES TO THE CLAIMS

1. Canceled

2 (Currently amended). A manufacturing method for manufacturing of a belt comprising the steps of:

forming a solid rubber into a sheet form;

forming laying said solid rubber sheet onto and a seamless substrate film;
into

abutting both ends of said rubber sheet to form a laminated cylindrical
shape composite;

placing said ~~laminated cylinder~~ cylindrical composite between an outer casing mold and a core mold where either said solid rubber sheet or said seamless substrate film faces radially inwardly ~~is facing inside~~; and

applying a pneumatic pressure to said ~~laminated cylinder~~ cylindrical composite for vulcanizing said solid rubber sheet and for adhering said solid rubber sheet to said substrate film so as to form said a one piece laminated cylinder ~~in one piece~~.

3. Canceled

4 (Currently amended). The manufacturing method of the belt according to claim 2 wherein ~~including a coated layer is formed~~ forming a coated layer on the outer

surface of said laminated one piece cylinder belt.

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5 (Currently amended). A manufacturing apparatus of a belt comprising:

a cylindrical outer casing mold;

an inner core mold;

an air bag for applying a pneumatic pressure to a laminated cylinder comprising a solid rubber and a seamless substrate from the outside of said core mold; and

a vulcanizing chamber ~~room~~ for vulcanizing said cylindrical solid rubber and for adhering said cylindrical solid rubber to said cylindrical substrate so as to form the laminated cylinder in one piece.